



Joint C4ISR Decision Support  
Center

# DSC MSRR Information Brief

Nov 2000

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# Overview

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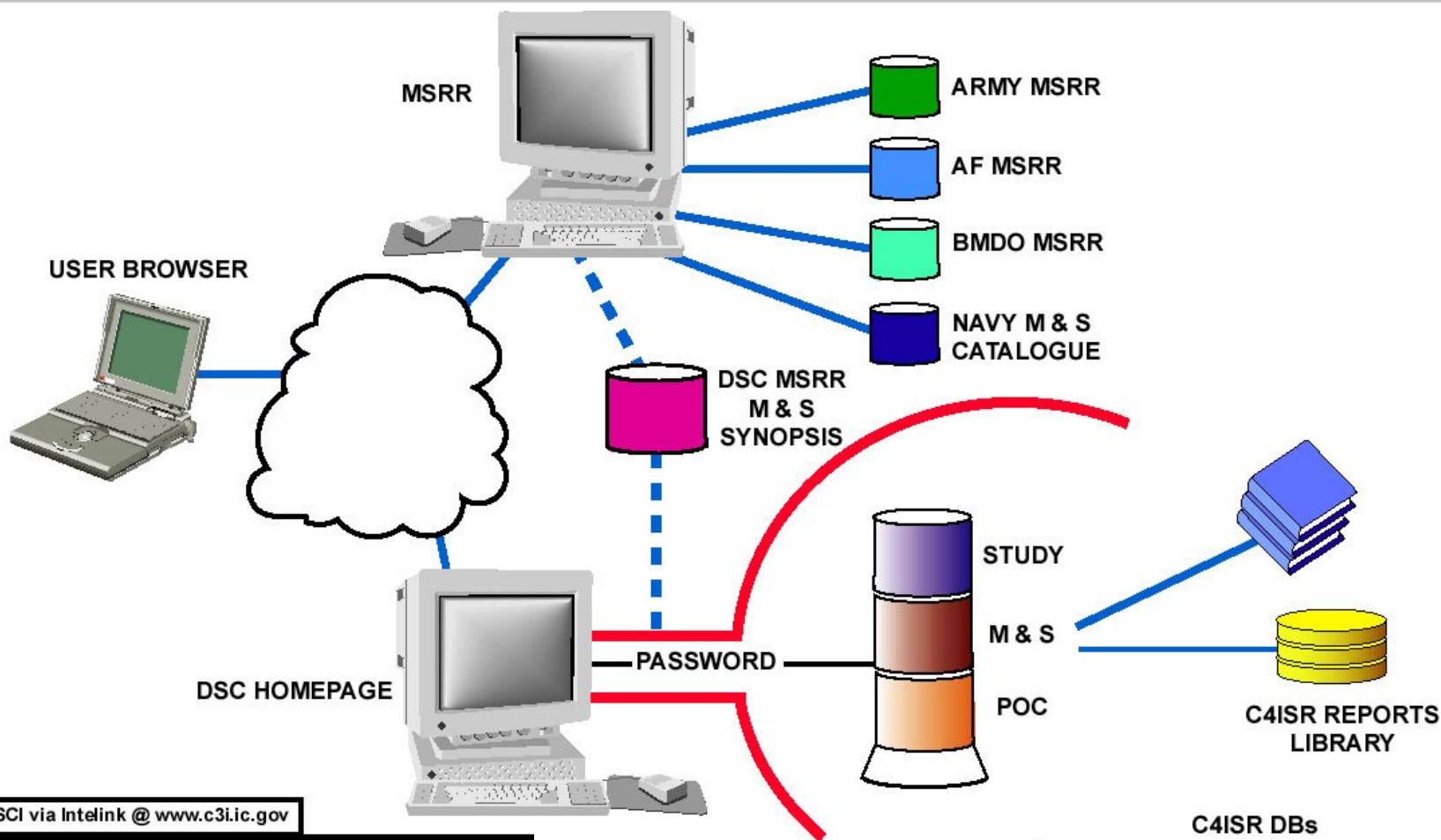
- Current DSC MSRR Status
- Funding to Date
- FY01 Plans
- Thoughts about Proposed Brief to EXCIMS



# DSC Infrastructure Goals

- Reduce C4ISR study costs by consolidating C4ISR study efforts and eliminating duplication
- Reduce C4ISR modeling and simulation costs by consolidating C4ISR modeling efforts
- Reduce C4ISR analysis costs by sharing C4ISR analytical data through shared databases and libraries

# Analytic Databases: The Concept



SCI via Intelink @ [www.c3i.ic.gov](http://www.c3i.ic.gov)

SECRET via SIPRNET @  
[147.254.104.12/DSC/index.html](http://147.254.104.12/DSC/index.html)

UNCLASS @ [www.dsc.osd.mil/\(Registration/Password Required\)](http://www.dsc.osd.mil/(Registration/Password Required))

PLANNED

C4ISR DBs

- 24 HOUR ON-LINE AVAILABILITY
- CONTENT MATCHED TO SECURITY ACCESS



# Key Features

- M&S tool characterization is C4ISR-focused, IAW the DSC charter
- Taxonomy is largely objective and quantitative -- supports several search modalities and a “consumers report” ranking of M&S tools by broad C4ISR areas
- M&S records linked to studies -- provides insight into how tools have been used by whom
- Because of link to studies, database is password protected



## Objects & Environments

# ModelName

## Objects Explicitly Modelled

**Background Information**

These tables contain generic objects grouped by domain (GROUND, AIR, SEA, SPACE and OTHER), including each type of object that is explicitly modelled by the appropriate flow. If this form is being completed for model selection purposes, identify those objects which must be explicitly modelled. Also indicate if object is BLUE, RED, BOTH or Neither (leave blank or click NOY).

Ground Table

### GROUND OBJECTS

**Mobile Units**

	Blue	Red	Both	Neither
AAA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Artillery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Armoured Vehicle	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Artillery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
CS	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
CS	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Common Node	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Decoy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Engineer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Blue	Red	Both	Neither
Ground Sensor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Infantry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Intel Unit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Intel Centre	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Main/Supply	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Man/Pd	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mine, Obst, Barbed Wire Unit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
PEDS, Ground Skatrol	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Fixed Objects**

	Blue	Red	Both	Neither
Airfield	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bridge, Power Building	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fixed Comm Net	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fixed SAM Site	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Named AD

	Blue	Red	Both	Neither
Seaport	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Next Table

### AIR OBJECTS

	Blue	Red	Both	Neither
Bomber	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Carrier	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fighter/Attack	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Helicopter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Maritime	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Refueling Air	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transporter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**ModelName**

## Environmental Modeling

### Background Information

Focus indicates how the effect of the natural environment is modelled.  
If an environmental effect is represented, click the corresponding box.

### NATURAL ENVIRONMENT (IMPACT)

#### Line of Sight

- ☐ Not modelled
- ☐ Uniform over the area represented in the model
- ☐ Limited to geographical and surface conditions represented in the model (for slope this equates to sea state)
- ☐ Linked to geographical and surface conditions and varies depending on weather

#### Impact on Detection/Transmission/Reception

##### Surface Representation

- ☐ Not modelled
- ☐ Surface represented by line direction/distance (e.g., bathymetric, seabed represented)
- ☐ Surface represented by area direction/distance (e.g., vegetation, land cover represented)

## Attributes, Fctns & Processes Summary

M&S Characterization Index			
Object Richness Indices			
Object Category	Blue	Red	Overall
C&SR	0.00	0.00	0.00
AI	0.00	0.00	0.00
Alt	0.00	0.00	0.00
Sea	0.00	0.00	0.00
Space	0.00	0.00	0.00
Other	0.00	0.00	0.00
Overall	0.00	0.00	0.00
Richness Indices for the Environment			
Ground Environmental Elements	0.00		
Air Environmental Elements	0.00		
Sea Environmental Elements	0.00		
Space Environmental Elements	0.00		
Other Environmental Elements	0.00		
Richness Indices for Functions/Processes			
C&SR Functions/Processes	0.00		
Command & Control	0.00		
ISR	0.00		
Communications	0.00		
Other Functions/Processes	0.00		
Modeling Detail Indices			
Object Attributes	0.00		
Methods for Ground Objects	0.00		
Methods for Air Objects	0.00		
Methods for Sea Objects	0.00		
Methods for Space Objects	0.00		
C&SR Functions/Processes	0.00		
Command & Control	0.00		
ISR	0.00		
Communications	0.00		
Other Functions/Processes	0.00		
Overall Modeling Detail	0.00		

# Current Configuration/Status



- Current Configuration
  - Recently Migrated from Mac to PC, DBMS is Filemaker Pro, CGI is Lasso
- On-line on the WWW, SIPRNET, and Intelink
- M&S Database contains detailed records on 142 M&S tools
  - 100% data completeness
  - Semi-annual or annual updates
- Studies Database contains detailed records on 319 planned, on-going, and completed studies
- An abridged version of the DSC MSRR searchable from other MSRR nodes has been created
  - Displays key C4ISR-related information on tools -- avoid redundancy with other sites
  - Accommodates keyword searches
  - Abridged version not password protected -- option to register and view detailed records
  - Linkage to other nodes expected in September

# DSC MSRR Content & Tech Requirements

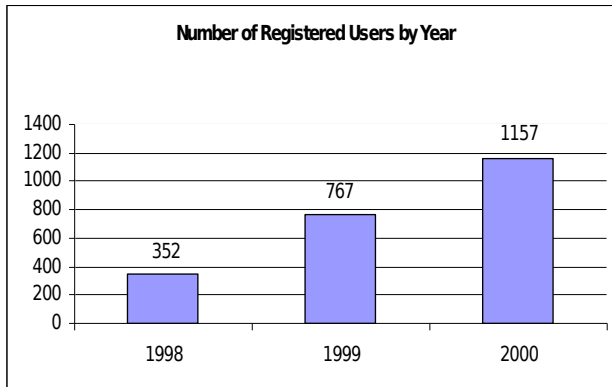
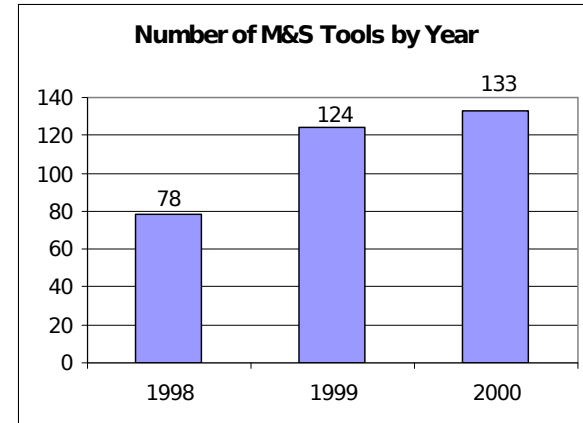
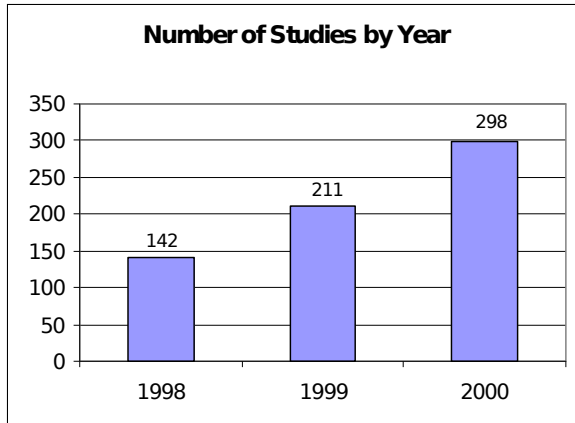


CONTENT		Assessment
Comments		Y
Models		
Descriptive Info Only		
Simulations	Y	Descriptive Info Only
Algorithms	R	
Tools	Y	Descriptive Info Only
Data	R	
Metadata	G	
Data Sets	R	
TECH REQUIREMENTS		
Avail on SIPRNET/JWICS	G	
MSRR Searchable	Y	Under Development
Other Resources		G C4ISR





# Studies and M&S Databases



- *Over 1150 registered users*
- *Typically, 350 database hits per month*



# Funding to Date

(Breakouts estimated)

	<u>FY97</u>	<u>FY98</u>	<u>FY99</u>	<u>FY00</u>	<u>FY01</u> *1
Mgmt(PM/CM )	\$150 K	\$150 K	\$100 K	\$100 K	\$100 K
Sys/DB Admin	\$300 K	\$200 K	\$110 K	\$115 K	\$120 K
SW Dev	\$300 K	\$200 K	\$150 K	\$100 K	\$110 K
Data Collection	\$300 K	\$175 K	\$200 K	\$250 K	\$200 K
Content Mgmt	\$200 K	\$175 K	\$260 K	\$265 K	\$200 K
Hardware	\$200 K	\$175 K	\$260 K	\$265 K	\$200 K
<b>TOTALS</b>	<b>\$1.5M</b>	<b>\$900K</b>	<b>\$830K</b>	<b>\$840K</b>	<b>\$730K</b>

Notes:

Govt STEs FY97 \$400K Non-recurring Startup costs \$10K  
 FY98- Consolidated M&S & Studies efforts (\$200K savings) +  
 less Gov STEs \$900 \$830 \$840  
 FY01-Reduction in data collection and content mgmt (\$110K) \$730  
 FY01- One Contractor/w one subcontractor, partially funded \$1.5M  
 POP thru 15 Nov 01 1.0 1.0 1.0



# FY01 Plans

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- Complete Transition to PC
- Complete MSRR Interface
- Continue O&M
- Continue data collection/content mgmt
- Begin transition to supported DBMS
- Explore consolidating System Administration and Database maintenance efforts



# Thoughts about Brief to EXCIMS

**Recommend:** Developing Decision Brief in response to tasking

**Tasking:** Consider alternatives to current system to improve MSRR Return on Investment

**Proposed BOD Actions:**

- Refine MSRR requirements
- Pose implementation alternatives  
i.e. distributed operations, combined ops
- Weigh advantages/disadvantages of each alternative



# Points of Contact

- Director: Col Dave Komar, 607-0591  
Crystal Mall 3, 6th Floor
- Home pages
  - INTERNET: [www.dsc.osd.mil](http://www.dsc.osd.mil)
  - SIPRNET: [147.254.104.12/DSC/index.html](http://147.254.104.12/DSC/index.html)
  - Intelink: [www.c3i.ic.gov](http://www.c3i.ic.gov)
- For access to DSC databases contact:  
Jaspal Chhabra, Analytic Support Services  
(703) 607-0615  
[jaspal.chhabra@osd.pentagon.mil](mailto:jaspal.chhabra@osd.pentagon.mil)